

REMARKS

In view of the above amendments and the following remarks, reconsideration and further examination are requested.

By this amendment, claims 19-30 have been canceled and new claims 31-39 added. Claims 1-18 were previously canceled. Thus, claims 31-39 remain pending. Support for the new claim recitations can be found at least at: Fig. 28; Fig. 84; Fig 174; and column 59, line 49 to column 60, line 6. If the Examiner requires further supporting passages, she is invited to contact the undersigned by telephone.

A substitute specification is filed herewith to make amendments to the specification. Also, proposed drawing amendments and new formal drawings incorporating the proposed drawing amendments are filed herewith. No new matter has been added.

Applicants wish to thank the Examiner for her time and consideration during the personal interview of July 3, 2003. The substance of the arguments presented to the Examiner during the interview are detailed below in response to the rejections set forth in the outstanding Office Action.

Claims 19-30 were rejected under 35 U.S.C. § 102(e) as being anticipated by Citta. This rejection is traversed and is inapplicable to new claims 31-39.

The present claims are drawn to apparatuses and methods for transmitting and/or receiving two signals, namely, a 2-level VSB modulated signal and an 8-level VSB modulated signal, wherein the spacing between the levels of the 2-level VSB signal is different than the spacing between the levels of the 8-level VSB signal. The system of Citta is not disclosed or suggested as transmitting and/or receiving a VSB signal. Moreover, Citta does not contemplate transmitting and/or receiving both a 2-level VSB modulated signal and an 8-level modulated signal.

According to Citta, a DC-offset level of one unit is added to the data segments so as to maintain the power of the pilot carrier constant, resulting in stable decoding of the received signal (see column 7, lines 49-51, and column 4, lines 21-25). According to Citta, only one signal is transmitted. Therefore, Citta does not teach anything associated with the requirements of constructing a system in which two signals (2-level VSB modulated signal and 8-level VSB modulated signal) are transmitted and/or received. Thus, claims 31-39 are not anticipated by Citta.

It is also submitted that it would not have been obvious to a person having ordinary skill in the art at the time the present invention was made to modify the system of Citta in such a way to result in the apparatuses and methods for transmitting and/or receiving both a 2-level VSB modulated signal and an 8-level modulated signal as recited in claims 31-39.

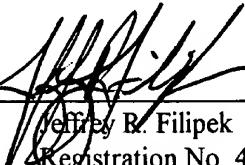
However, even if a person having ordinary skill in the art would have considered modifying the system of Citta in such a way to allow the system to transmit and/or receive two signals rather than one, the claimed inventions would still not result. Based on the teaching of Citta, if a DC-offset is to be added to each of the 2-level VSB modulated signal and the 8-level VSB modulated signal, one unit of DC-offset would be added to the 2-level VSB modulated signal and to the 8-level VSB modulated signal. If the system were first modified to deal with VSB modulated signals, the “one unit” disclosed by Citta could be considered as the distance between two adjacent levels in each of the VSB modulated signals. Since the distance between the two adjacent levels of the 2-level VSB modulated signal is greater than the distance between the two adjacent levels of the 8-level VSB modulated signal, the DC-offset for the 2-level VSB modulated signal and that for the 8-level VSB modulated signal would be different if the teaching of Citta is applied to a system dealing with both a 2-level VSB modulated signal and an 8-level VSB modulated signal. This approach would actually be quite beneficial from the viewpoint of suppressing the fluctuation of the power level in the received signal, resulting in stable received signal. Thus, such a modification might have been obvious, but such a modification does not result in the claimed system because the amount of DC-offset added to the 2-level VSB modulated signal and the 8-level modulated signal is different. On the contrary, according to the present invention, the DC-offset amount added to the 2-level VSB modulated signal and that added to the 8-level VSB modulated signal are the same.

Because of the distinctions discussed above, claims 31-39 are not anticipated by Citta, nor would it have been obvious to a person having ordinary skill in the art at the time the present invention was made to modify the system of Citta in such a way as to result in the present invention

as recited in claims 31-39. Therefore, it is submitted that claims 31-39 are allowable over Citta and the prior art of record. Thus, it is also submitted that the present application is in condition for allowance. The Examiner is invited to contact the undersigned attorney by telephone to resolve any remaining issues.

Respectfully submitted,

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